Enclosure

Steri-Tech Inc. GCFID raw data vs Chromatograph sheets

Example 1

GCFID raw data for file "Steri-Tech NAO2021_1178," generated on August 12, 2021, at 18:35:48, reported a result of 1,531.486. However, the chromatograph sheet for that same file includes an area count of 10,531.486 and equates to a concentration of ~1,760 ppm. A result of 1,531.486 equals ~257 ppm. This inconsistency is shared with other data points provided.

The results in this range far exceed the highest calibration standard used, and the method (Method 18, Section 10.0, "Calibration and Standardization"²) requires users of the method to "Prepare or obtain enough calibration standards so that there are three different concentrations of each organic compound expected to be measured in the source sample. For each organic compound, <u>select those concentrations that bracket the concentrations expected in the source samples</u>" (emphasis added).

Steri-Tech NA02021_1006.	8/12/2021	12:42:56 Ethylene Oxide	0	0	NAO inlet ARV contrib
Steri-Tech NAO2021 1007.	8/12/2021	12:44:59 Ethylene Oxide	0	0	
Steri-Tech NAO2021_1008.	8/12/2021	12:47:02 Ethylene Oxide	0	0	
Steri-Tech NAO2021 1176.	8/12/2021	18:31:42 Ethylene Oxide	0	0	Start SCV Run 3
Steri-Tech NAO2021 1177.	8/12/2021	18:33:45 Ethylene Oxide	0	0	
Steri-Tech NA02021 1178.	8/12/2021	18:35:48 Ethylene Oxide	0.74	1531,486	
Steri-Tech NAO2021 1179.	8/12/2021	18:37:51 Ethylene Oxide	0.726	1965.488	
Steri-Tech NAO2021_1180.	8/12/2021	18:39:54 Ethylene Oxide	0	0	
Steri-Tech NAO2021 1181.	8/12/2021	18:41:37 Ethylene Oxide	0	0	
Steri-Tech NAO2021_1182.	8/12/2021	18:44:00 Ethylene Oxide	0.726	4958.416	
Steri-Tech NAO2021 1183.	8/12/2021	18:46:03 Ethylene Oxide	0.736	1162.14	
Steri-Tech NAO2021 1184.	8/12/2021	18:48:06 Ethylene Oxide	0.743	450.3401	
Steri-Tech NAO2021 1185.	8/12/2021	18:50:09 Ethylene Oxide	0.73	532,229	
Steri-Tech NAO2021 1186.	8/12/2021	18:52:12 Ethylene Oxide	0.753	156.3311	
LCHP102319B		•		•	
Steri-Tech, Salinas, Puerto Rico					
2021 NAO Sub O Test		4			10/26/2021

¹ Using Method 18 calibration curve GC FID 0-502 ppm EtO equation y=0.1678x included in Addendum 1 of the Test Report dated October 26, 2021.

² https://www.epa.gov/sites/default/files/2019-06/documents/method_18_0.pdf

Lab name: LCH Consulting Associates, LLC
Client: Steri-Tech, Inc. Salinas, Puerto Rico
Client ID: STI
Analysis date: 08/12/2021 18:35:48
Method: Direct Injection
Description: FID-Outlet
Column: barson in

Description: FID-Outlet
Column: haysep n
Carrier: helium
Integration: Peak sens=95.0 Base sens=60.0 Min area=
Data file: Steri-Tech NAO2021_1178..CHR ()
Sample: Sample
Comments: NAO Outlet Stack

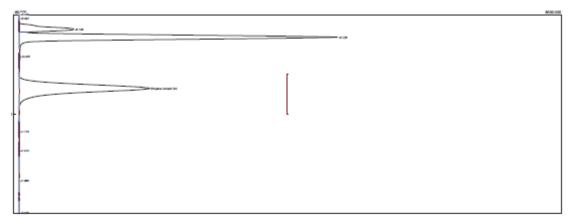
Temperature program:

Hold 2.000 nit temp 130.00 Ramp 0.000 Final temp 130.00

Events:

Time Event 0.000 ZERO 0.000

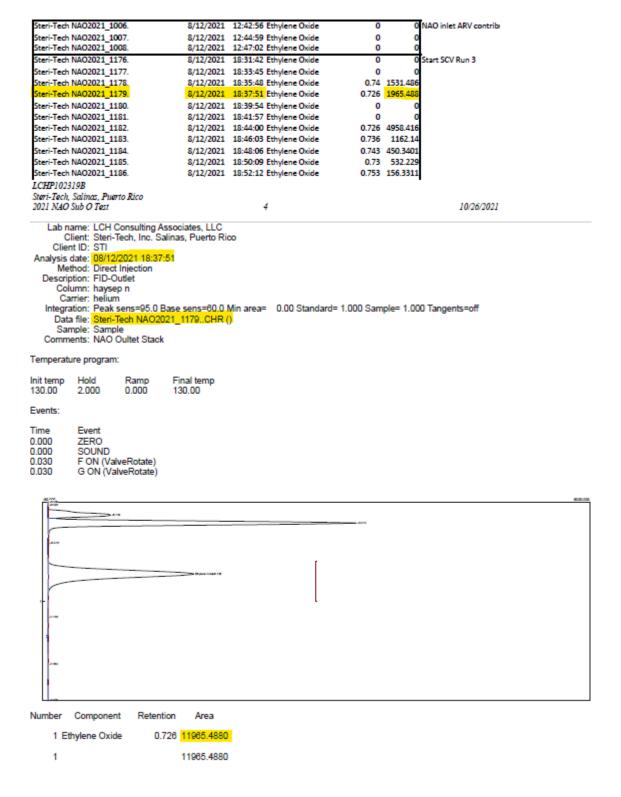
SOUND F ON (ValveRotate) G ON (ValveRotate) 0.030 0.030



Number Component Retention Area 0.740 10531.4393 1 Ethylene Oxide 10531.4393

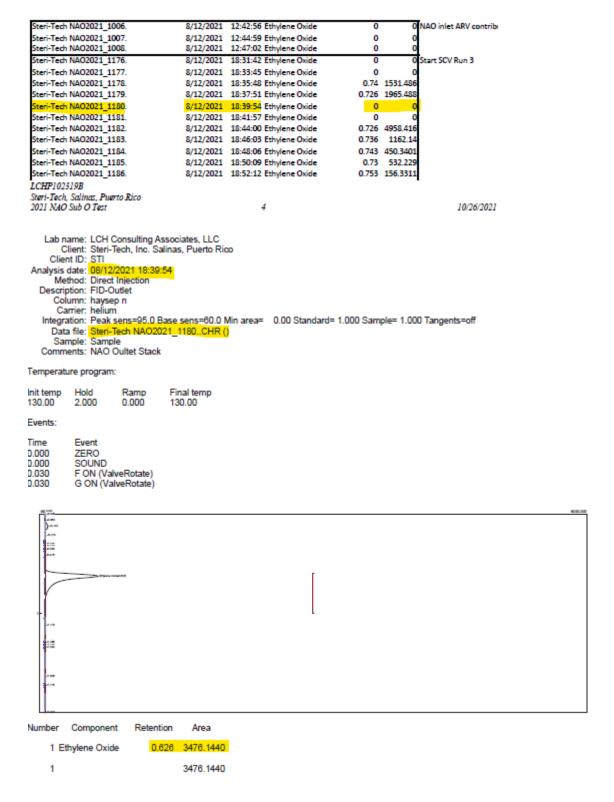
Example 2

GCFID raw data for file "Steri-Tech NAO2021_1179," generated on August 12, 2021, at 18:37:51, reported a result of 1,965.488. However, the chromatograph sheet for that same file includes an area count of 11,965.488, and equates to a concentration of ~2000 ppm. The result of 1,965.488 equates a concentration of ~330 ppm.



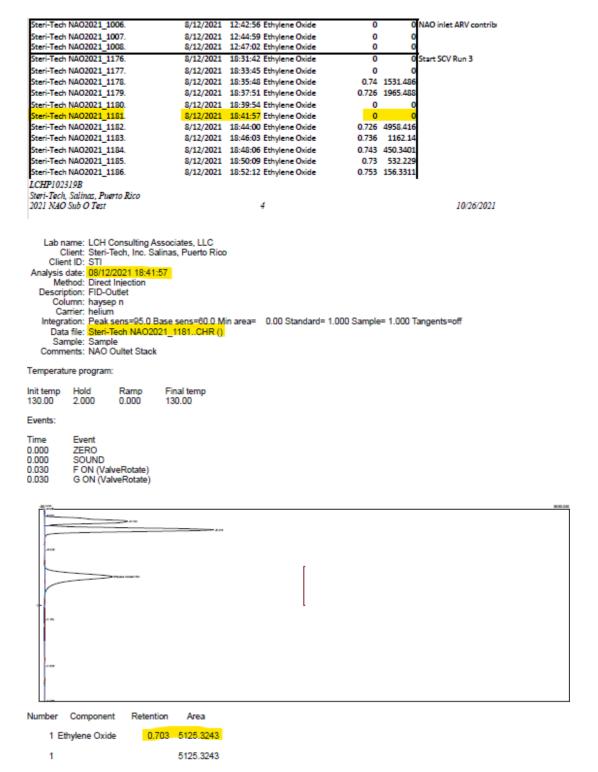
Example 3

GCFID raw data for file "Steri-Tech NAO2021_1180," generated on August 12, 2021, at 18:39:54, reported a result of 0. However, the chromatograph sheet for that same file includes an area count of 3,746.144 and equates to a concentration of ~628 ppm.



Example 4

GCFID raw data for file "Steri-Tech NAO2021_1181," generated on August 12, 2021, at 18:41:57, reported a result of 0. However, the chromatograph sheet for that same file includes an area count of 5,125.3243 and equates to a concentration of ~860 ppm.



A similar issue to the one indicated in Examples 3 and 4 was also identified for the analysis conducted on August 12, 2021, at 18:31:42 and 18:33:45, for which the GCFID raw data reported values of 0, but the chromatograph indicates area counts of 107.8727 and 5,236.8869, respectively, which equates to concentrations of ~ 18 ppm and ~ 880 ppm, respectively.